

What is claimed is:

1. A device for wirelessly transmitting and receiving audio and video data, comprising:
 - a means for receiving a transmission stream having data formatted into distinct packets
 - 5 that includes at least one PID and an associated PSI, including a PAT, a PMT, a CAT and a NIT; and
 - a means for demultiplexing the PSI based upon one or more PID assignments to unique transport packets; and
 - a means for reassembling the PSI in accordance with a RTP data flow; and
 - 10 a means for encapsulating the RTP data flow into one or more IP packets with corresponding multicast addresses; and
 - a means for communicating the reassembled transport stream.
- 15 2. The wireless device in claim 1, wherein the means for communicating comprises a WLAN.
3. The wireless device in claim 1, wherein the means for reassembling the PSI includes a means for inserting a multicasting IP address for each associated PMT.
- 20 4. The wireless device in claim 3, wherein the PMT points to a program addressed by the multicasting IP address.
5. The wireless device in claim 3, wherein the means for inserting a multicasting IP address for each associated PMT includes a means to calculate a CRC.
- 25 6. The wireless device in claim 3, wherein the PSI contains a descriptor field in which the multicasting IP address is stored.
7. The wireless device in claim 3, wherein the PSI is re-formed from the PAT and the PMT.
- 30 8. The wireless device in claim 1, wherein the PSI contains a flag to indicate that the PSI is unchanged from a prior transmission.
9. The wireless device in claim 1, wherein the PSI contains a flag to indicate that the PSI is changed from a prior transmission.

REPLACED BY
ART 34 AMDT

14

10. A mobile terminal adapted to wirelessly receive audio and video program data, comprising:

a means for receiving a transmission stream having data formatted into one or more distinct packets that include at least one multicasting IP address and an associated PSI,

5 including a PAT and a PMT;

a means for demultiplexing the PSI based upon one or more multicasting IP address assignments to unique transport packets in accordance with a RTP data flow;

a means for extracting a multicast address

a means for receiving a transmission stream associated with the multicast address.

10

11. The mobile terminal in claim 10, wherein the receiving means comprises means for receiving data according to the IEEE 802.11 standards.

12. A method for mapping MPEG-2 TS into an IP-based RTP/UDP/IP stack comprising the steps of:

15

receiving a transmission stream having data formatted into distinct packets that include at least one PID and associated PSI, including a PAT and a PMT;

demultiplexing the PSI based upon one or more PID assignments to unique transport packets;

20

reassembling the PSI in accordance with an RTP data flow

encapsulating the RTP data flow into IP packets with a multicast address

communicating reassembled transport stream over a WLAN.

13. A method for mapping MPEG-2 TS into an IP-based RTP/UDP/IP stack comprising the steps of:

25

receiving a transmission stream having data formatted into distinct packets that include at least one PID and an associated PSI, including a PAT and a PMT; and

demultiplexing the PSI based upon one or more PID assignments to unique transport packets in accordance with an RTP data flow; and

30

extracting a multicast address; and

assembling a video program associated with the multicast address.

REPLACED BY
ART 34 AMDT

15

14. A method of decoding a digitally compressed video stream that has been packetized and transmitted over a packet-based network in a sequence of packets, the method comprising the steps of:

receiving packets associated with at least one multicasting IP address and associated

5 PSI, including a PAT and a PMT;

determining which transmitted packets associated with the PSI based upon a PID assignment to unique transport packets in accordance with an RTP data flow; and

a means for extracting a multicast address; and

a means for receiving a transmission stream associated with the multicast address.

10

15. A computer readable medium for mapping MPEG-2 into an IP-based RTP/UDP/IP stack having stored thereon one or more data structure selected from the group comprising of:

one distinct packet that includes at least one first field containing an IP multicast address, a second field representing a PAT and an associated PMT; a third field containing data

15 representing an RTP head and a fourth field containing data representing a program.

16. The computer readable medium for mapping in claim 15, wherein the PSI further contains a flag to indicate that the PSI is unchanged from a prior transmission.

20 17. The computer readable medium for mapping in claim 15, wherein the PSI further contains a flag to indicate that the PSI is changed from a prior transmission.

REPLACED BY
ART 34 AMDT

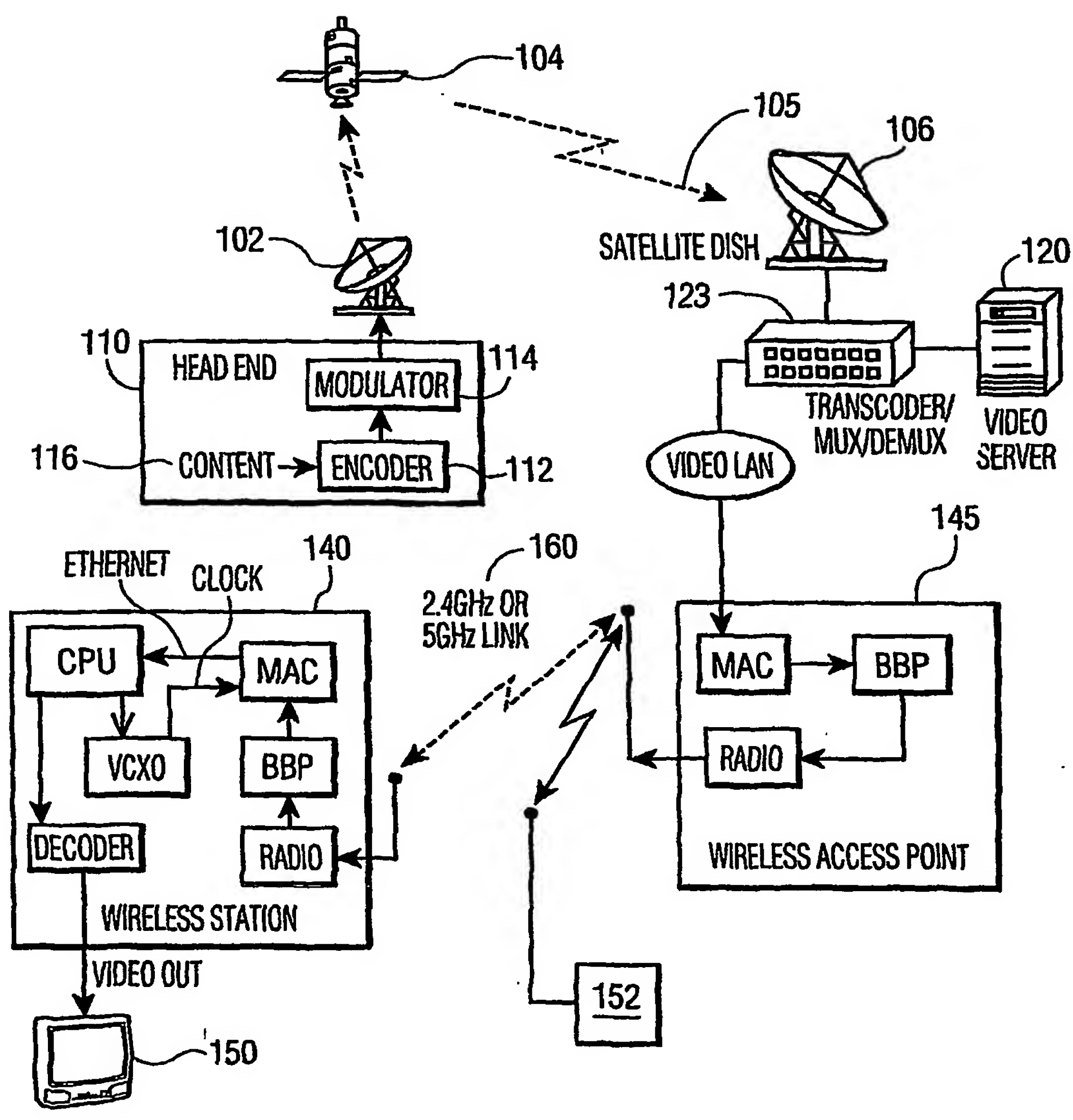


FIG. 1

REPLACED BY
ART 34 AMDT

2/3

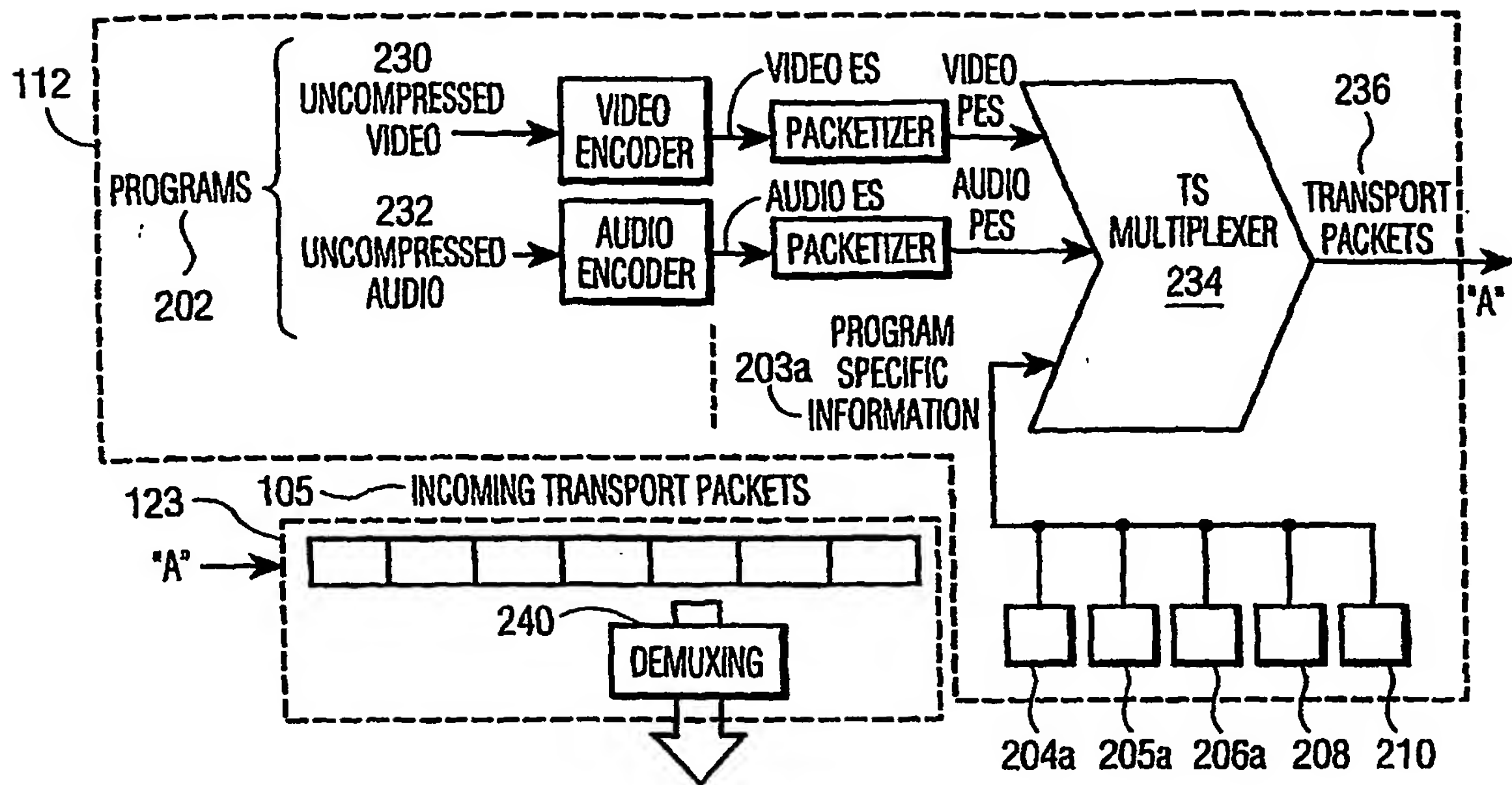


FIG. 2A

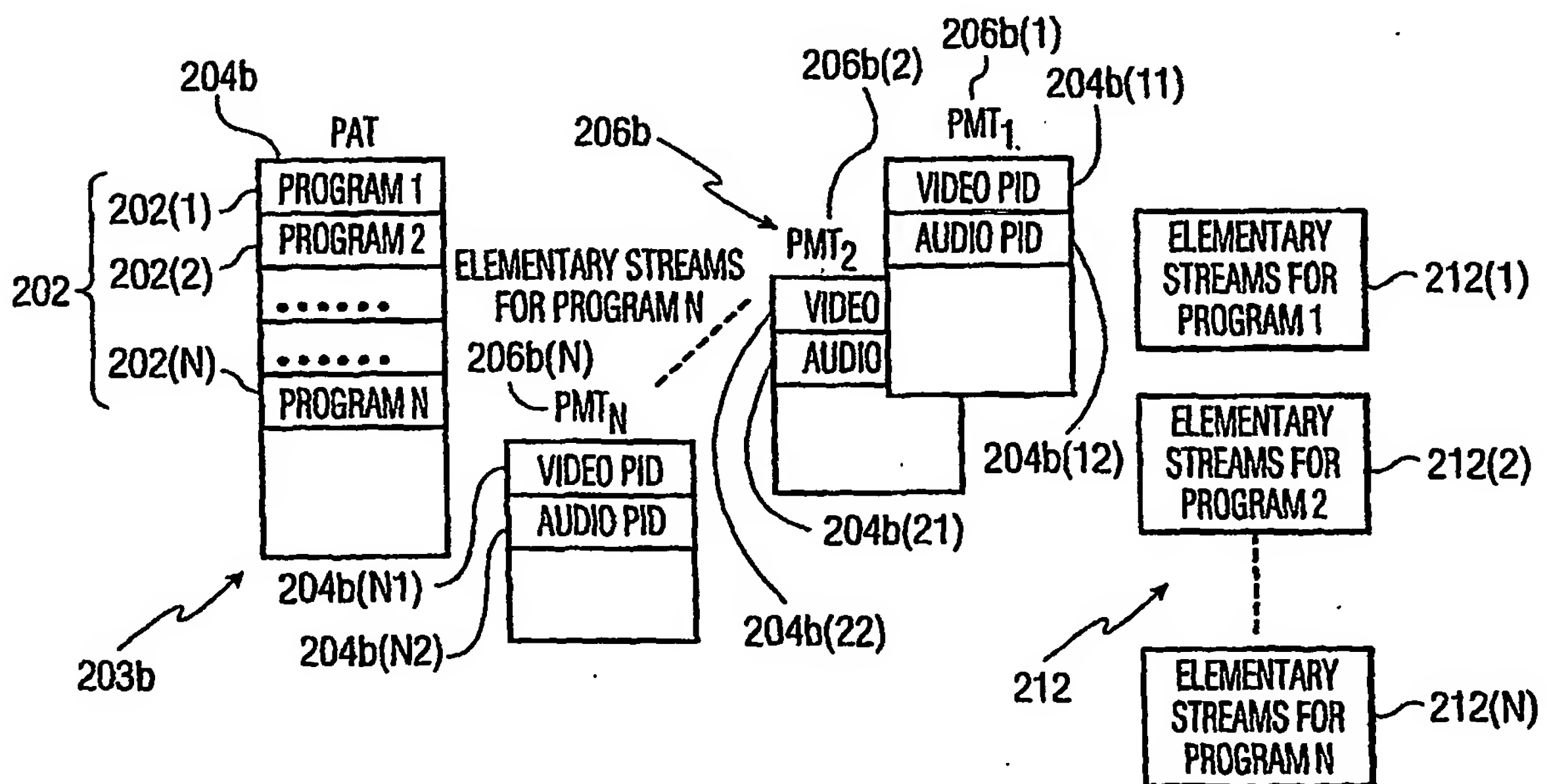


FIG. 2B

REPLACED BY
ART 34 AMDT

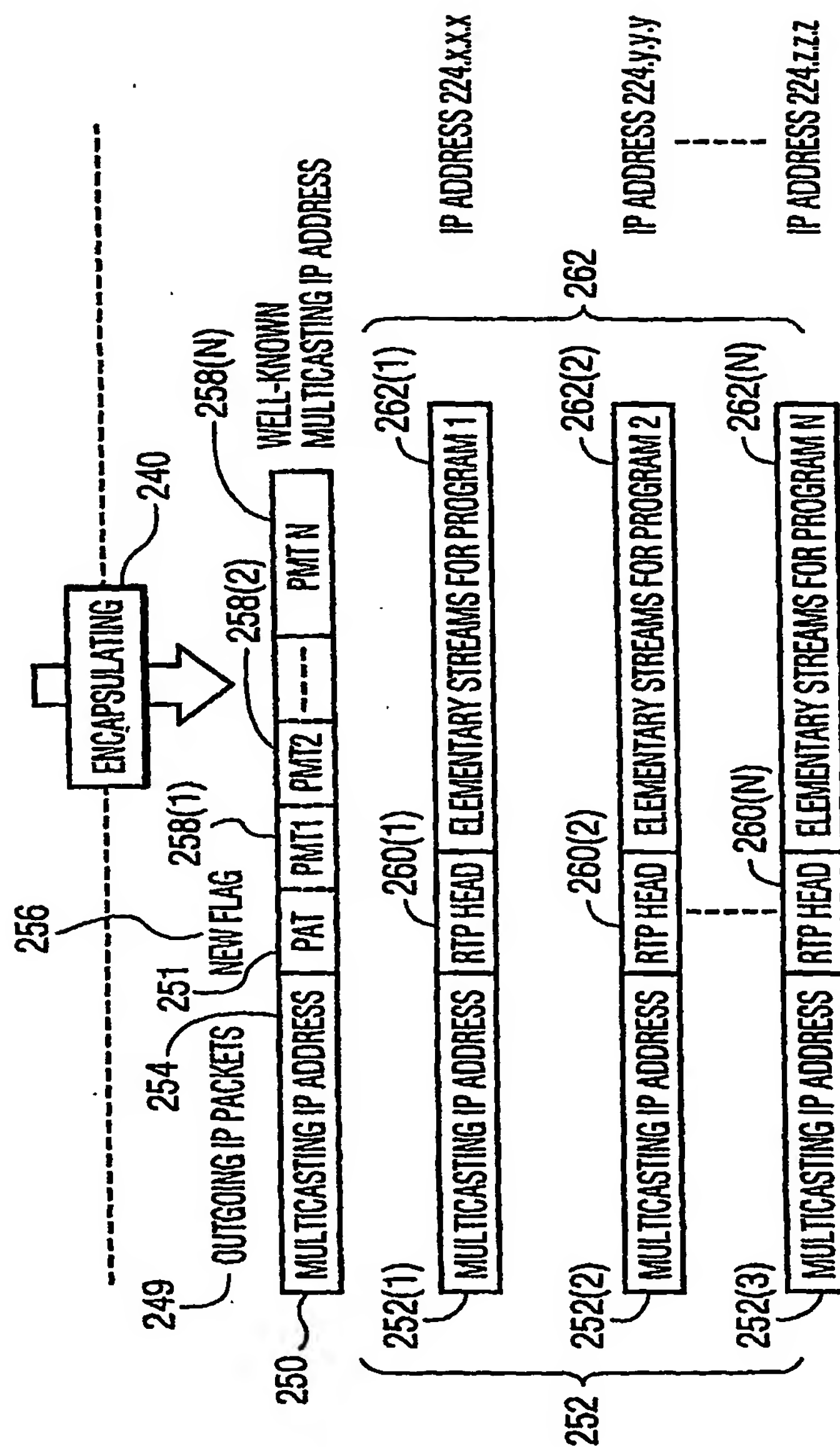


FIG. 2C

REPLACED BY
ART 34 AMDT